

AMENDMENTS TO THE CLAIMS:

Please cancel claims 1-7 without prejudice or disclaimer, and amend the claims as

1-7. (Canceled)

8. (Currently Amended) An optical waveguide ~~at least comprising:~~

~~comprised of a core;~~ and

a clad,

~~wherein characterized by that the core is patterned by using a photomask,~~

and

~~wherein a that width of a part of the photomask corresponding to the core~~
~~corresponding to the core of the photomask is wider than the core~~ a width of the core.

9. (Currently Amended) An optical waveguide as claimed in claim 8, wherein the width of the part of the photomask that corresponds to the core is more than 0.5 μ m wider than the ~~core~~ width of the core.

10. (Currently Amended) An optical waveguide at least comprising:

~~comprised of a core;~~ and

a clad,

wherein ~~the core~~ a width of the core, d , is represented by the formula:

$$d < 1.45\lambda / (2(\sqrt{(n_{\text{core}}^2 - n_{\text{clad}}^2)}))$$

where a refractive index of the core is n_{core} , ~~that~~ a refractive index of the

clad is

n_{clad} , and a cutoff wavelength of the optical waveguide is λ , and a width M of a
corresponding part of the a masking layer that patterns the core will be: is represented by
the formula:

$$M > 1.45\lambda / (2(\sqrt{(n_{\text{core}}^2 - n_{\text{clad}}^2)})).$$

11. (Currently Amended) An optical waveguide as claimed in claim 10, wherein the cutoff wavelength is 80 to 90% of ~~the~~ a wavelength in use.